

- Children’s/community gardens
- Educational/interpretive plantings
- Greenways/landscaped paths
- Interesting landforms
- Lawns/open expanses
- Manicured landscapes/flowers
- Native vegetation/restoration
- Tree plantings/groves
- Wetlands/river plantings
- Wildlife habitat
- Other (please write in):

Based on the responses from the visioning questionnaire, it was clear to the design team that many of the participants walk or bicycle in their neighborhood and occasionally to the LARIO trail along the Los Angeles River channel. Additionally, almost half of the respondents noted serious conflicts in the westside of Long Beach between bicyclists, pedestrians, and motorists. The respondents desire both active and passive recreational space, to include amenities such as better lighting, playgrounds, and seating areas. As mentioned in the Imageability section, nearly all the respondents recognized downtown Long Beach as a distinct part of the city, and defined smaller shopping areas across town as definable points that the RiverLink system should connect to. By far, the issue that received the widest response was safety in parks; many people noted problems with crime and vagrancy, mostly at night, and asked for increased security patrols.

The responses from the *charrette* questionnaire confirmed the findings from the visioning meeting and narrowed the focus to spotlighted sites within the RiverLink system. In addition, the respondents noted that new park sites should be designed with public restrooms and drinking fountains. They also asked for nature trails incorporated within the design.

The design team feels that the community outreach meetings were a success despite the lower than expected participant turnout. For future meetings, the turnout could be improved by increased advertising at grocery stores and outreach through local schools, ethnic businesses, and community groups reflecting the cultural diversity of the westside of Long Beach.

# APPENDIX B

## FURTHER CASE STUDY RESEARCH

by James Chaddick

This appendix contains further information about the River Reconnection Case Studies relevant to the design of the Long Beach RiverLink project.

### Criteria for Case Study Selection:

- The city’s riverfront was to be forlorn or under-utilized in the 20th century, usually by a single-issue planning measure such as flood control.
- The city and river studied at one time had historic or commercial links to the river system.
- The river was to be a linear riverine system of similar context to Long Beach’s reach of the Los Angeles River.
- There was to be an occurrence of partial to full channelization. The natural character of the river system was to be altered by improvements such as flood control or other single-issue-driven planning.
- The river system was to be crossed by major highway and infrastructure elements that caused barriers to movement, and areas that could have safety issues.
- The river parkway system had to be adjacent to former industrial brownfield sites and urban influences to develop ideas on connecting to the urban fabric while using adaptive reuse of post-industrial sites and structures.

### Case Study Project Descriptions

Many of the river parkway systems incorporate unique features specific to their cities. They all make significant efforts to connect to the existing parks and significant urban districts and neighborhoods. The 10.5-mile system in Denver connects five major parks with varied amenities such as sports facilities, retail shops, a planned aquarium, an amusement park, formal gardens, residential units, and entertainment facilities, punctuated by spectacular pedestrian bridges. It also connects to privately supported open and wild spaces and makes every effort for neighborhood access through trail systems and pedestrian promenades.

Hartford’s 1.5 miles of river parkway system was designed to reconnect the struggling downtown to the river. The system has given new nightlife and weekend life to Hartford. It features hiking trails and entertainment spaces and builds on and extends existing plazas and open spaces. The parkway system has improved connections to East Hartford, the Hartford downtown, Charter Oak Park, “historic” Riverfront Plaza, an Olmsted Brothers-designed park, Great River Park and Riverside Park. “Riverfront Plaza has attracted more than 500,000 people for regattas, concerts, movie nights and other special activities” (Dillon, 2000, p.75). In the period of September 1999 to August 2000, the Hartford Riverfront Recapture Corporation estimated that an economic benefit to the City of Hartford of \$17 Million was generated from the creation of the parkway system.

Phoenix’s river parkway system made efforts to connect to commercial and retail shopping districts by connecting to Central Ave., Downtown and the Rio Salado redevelopment area known as “Beyond the Banks.”

In Portland, the parkway system creates, enhances, and restores habitat areas. It teaches environmental education via an “urban nature trail.” The walls, abutments, and paving patterns are punctuated by public art, used “to enhance the presence of art” (Hinshaw, 2001, p.71). The system contains three parks. “The design offers a continuous, meandering esplanade for strolling, jogging and biking. The esplanade is situated at the top of a sloping bank, retaining the portion nearest the water for natural habitat” (Hinshaw, 2001, p. 70). Habitat preservation is given a high priority. Walkways cantilever over the river in places. The trails consist of continual shifting views of urban and natural vistas, “contrasting the economy of the city with the ecology of the river” (Hinshaw, 2001, p.71).

Richmond’s James River Canal Walk is a 1.25-mile corridor of parks, canals, shops, restaurants, marinas, hotels, residential housing, and museums. It was designed specifically to connect the downtown with the James River, Kanawha Canal, Haxall Canal, and Browns Island Park.

The Saint Paul parkway system on the Mississippi River near downtown Saint Paul, includes plantings of trees and shrubs native to the area, interspersed with businesses and housing. Through the Great River Greening Project, volunteers planted 37,000 trees . Connections are made to downtown, the Great River Park, Upper Landing Park (with a river theatre), the Science Museum of Minnesota, Swede Hollow park, Lilydale Regional Park, and Harriet Island.

The Yarkon River in Tel Aviv connects to Ganei Yehoshua Park, the major central park in the city, and “reinforces Tel Aviv’s main leisure districts known as Park Hadarom, the Yarkon Promenade, and to the tourist areas along the seafront. The last two converge at the redeveloped port and Levant Fair area” (Israeli, 2003). The Ganei Yehoshua or Yarkon Park serves as a green lung for some two million inhabitants of the Dan (Tel Aviv) Metropolitan region. “Major efforts are going into monitoring and pest control, based on environment-friendly pest and biological control methods” (Israeli, 2003).

Planning Model

One of the most prominent reoccurring features to come out of these case studies is the coming together of many public and private groups and institutions. In every case, although not always specifically identified, there was the use of place-based planning and design in the creation of these systems. Additionally, in many cases, the river greenway system started from a single location and the momentum of that effort helped create the overall system. Such is the case of Denver where former State Senator Joe Shoemaker began a greenway foundation. This foundation was founded with the intention on “marking the meeting of the South Platte and Cherry Creek with a park” (Chandler, 2002, p.93). From that successful start, the whole parkway system developed.

As for Hartford, there was large public participation with many public and private funding partnerships. This led to the establishment of the Riverfront Recapture Corporation, in 1981, which is made up of the City of Hartford, the Town of East Hartford, and the Metropolitan District Commission, as managing partners for river redevelopment.

In Phoenix, the Rio Salado Citizens Advisory Committee was created and scheduled community meetings during the project development phase. Restoration of the river is part of overall redevelopment plan for the area.

The City of Richmond project combines economic redevelopment and historic preservation with a mandated public works project. A twenty-year development agreement was created by special legislation from the state assembly. It created a process for reviewing projects and imposed urban design guidelines. Zoning is frozen to prevent political gerrymandering. The agreement sets the legal framework on how parties work together and, per the master plan, all development must to relate to the Canal Walk. First floors must front the canal.

Saint Paul created the Saint Paul on the Mississippi Development Framework in 1997. The framework understands that quality of life is based on the ability of a city to effectively balance economy, environment, and society. It strongly suggests that such an approach “provides a primary competitive advantage in an increased global world” (Martin, 2001, p.63). The framework called for an “implementation agency to steward the projects along the riverfront known as *The Design Center*. The Design Center is a multijurisdictional planning and design office that reviews all plans for the public realm: streetscapes, bridges, and parks. It is made up of staff from a “full range of city departments” (Martin, 2001, p.63).

The Saint Paul on the Mississippi Development Framework outlined these guiding principals:

- Evoke a sense of place.
- Restore and establish the unique urban ecology.
- Invest in the public realm.
- Broaden mix of uses.
- Improve connectivity.
- Ensure that buildings support broader city building goals.
- Build on existing strengths.
- Preserve and enhance heritage resources.
- Provide a balanced network for movement.
- Foster public safety.

The creation of the Yarkon River Authority in 1988, became the first concerted effort in Israel to provide for river rehabilitation. The Yarkon River became the model for countrywide educational programs on river restoration through a teaching and research center on its banks.

**Design Themes and Park Details**

In many of the park systems, the majority of the primary materials that were used in the creation of amenities were concrete, stone, and steel. Stone was used where structures met ground level, with steel above the stone, as was the case in many of the amenities in Denver and other urban river parkway systems. Solid, simple, “clean and pragmatic choices were made in materials and design” (Dillon, 2000, p.73). These strong materials are able to handle exposure to the elements, along with the stresses of heavy use and vandalism.

Phoenix’s Rio Salado system features environmental restoration efforts with plans for the transformation of a 5-mile section

of the river and associated ecosystems. The plans include 88 acres of mesquite bosque, 14 acres of cottonwood/willow habitat, 39 acres of wetlands and marsh, 193 acres of Sonoran habitat, 57 acres of saltbush habitat, and 31 acres of aquatic strand. Another 160 acres of open space are planned, including an environmental education center, demonstration wetlands, and equestrian staging areas. Included are 10 miles of recreational and interpretive trails; also, wells and an associated water delivery system that brings water to the trees and other vegetation, wetlands, canals, ponds, and streams. The design allows for wildlife with the creation of spaces for water to collect, and uses a planting palette that provides shelter and food.

Portland’s design speaks to the former uses of the sites that were along the east bank of Willamette River. Postindustrial artifacts such as piers and slurry piles are incorporated into the design. “Walks, railings, stairs and markers are made out of concrete stainless steel, metal grates and aluminum” (Hinshaw, 2001, p.70) for a playful postindustrial Disney-esque aesthetic. Materials used evoke former industrial sites and current highways.

An interpretive historic theme permeates the design for Richmond’s James River Canal Walk. The original canal is used as a reference point for a “linear outdoor museum, which focuses on historic civic themes such as commerce, justice, labor, transportation, war, and renewal” (Mays, 2002, p.94). Historic themes are planned for the entire length, including a Richmond Civil War Center and historical murals.

The Saint Paul river corridor placed an emphasis on its tributaries as a cultural “watershed model, an entity that incorporates elements, communities and patterns... These elements include both ecological and the culturally significant such as sacred Native American sites and historic riverboat landings and other commercial uses” (Martin, 2001, p.66).

**Obstacles and Adaptive Reuse**

Each park system had to contend with obstacles such as freeways, floodwalls, railroad tracks, and retrofitting per ADA requirements. In most cases the systems made few or no alterations, or incorporated the infrastructure into the design. Many used items like highway design patterns and industrial elements as motifs to fit into design details. In Denver, former brownfield sites were cleared and capped. Sites included warehousing and light industry, paint manufacturing and storage, and an old car crushing plant. Portland made adaptive reuse of a decommissioned fire station and former industrial sites and remnant materials. Richmond restored and reused 19th century tobacco warehouses, ethyl refining plants, an Alcoa Aluminum factory site, a former Richmond Power plant, and the historic



Tredegar Iron Works site, which became a Civil War museum. Saint Paul reused the former Harvest States Grain Elevators for conversion to commercial development near Upper Landing Park. In Tel Aviv, the former port areas were converted to a pleasure craft marina and many adjacent industrial sites were converted to parklands.

Wayfinding and Orientation

In Denver, as well as in several of the other parkway systems, dolmens, or standing stones, are used as entry markers and intermediaries between urban areas, plazas, and park areas. Most systems use map kiosks, and Hartford gives out walking tour maps at several prominent entry locations and uses park rangers for interpretation and security. River gateways and interpretive signage are used in almost every case. Phoenix makes special significance to river gateways at certain bridges. Portland’s river system uses highly distinctive “urban markers,” drawing from industrial vernacular responses, which corresponds to urban grid and tell stories about the history and ecology of the river. Richmond’s canal walk makes use of 29 large interpretive medallions, statues, historic structures and artifacts, and interpretive signage, woven throughout the parkway system. Saint Paul urban corridor tree plantings denote “stairs” that bring the city to the river.

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APPENDIX C  
THE ECOLOGICAL AND  
SOCIAL BENEFITS OF THE  
URBAN FOREST

By: Edward Anaya

Introduction

It is increasingly rare to come across a beautifully shaded avenue lined with mature, spreading trees that to many of us represents the ideal in urban and community tree plantings. Trees and urban forests are essential components of our communities and make communities more livable. Studies show that trees and shrubs improve a community’s appearance, improve energy efficiency, improve water and air quality, increase property values, and create wildlife corridors. Trees are also a factor in retaining and attracting residents, which promotes community stability.

The effect of trees in climatic modification is presented, highlighting the value of shade and windbreaking effects. Street trees also mitigate noise pollution by buffering the noise level of the city. Storm water runoff and erosion are also reduced by trees. The urban forest sustains wildlife habitat by providing suitable environments and travel corridors for birds and other wildlife. Property values are also influenced by street trees, as their presence can increase the value and desirability of an individual lot and residential street. Perhaps most significantly is the rela-